PSI

COMPENSATED NEUTRON
GAMMA RAY

Company: Chesapeake Energy
Field: Wattenberg
Well: Ringler Farms 32-29
Location: API # 05-123-22054-00
2187' FNL & 2187' FEL
Sec. 19, T4N, R67W, 6th PM
Latitude:
Longitude:
Date: 3/15/2010
Run Number: One
Depth Driller: 7975 ft
Depth Logger: 7975 ft
Bottom Logged Interval: 7975 ft
Top Logged Interval: 200 ft
Casing Driller: 8.625 @ 200 ft
Casing Logger: 200 ft
Bit Size: 7.875 in
Type Fluid: Water Based
Density: 8.8 lb/gal
Viscosity: 28 s/qt
PH: 9.5
Fluid Loss: 8 cc
Source of Sample: Flowline
Rm @ Meas. Temp: 0.2 @ 70 °F
Rmf @ Meas. Temp: 0.15 @ 70 °F
Rmc @ Meas. Temp: 0.3 @ 70 °F
Source Rmf / Rmc: Measured / Calculated
Rm @ BHT: 0.12 @ 180 °F
Time Since Circulation: 4 hours
Max Rec. Temperature: 180 °F
Equipment / Base: 1306 / Greeley
Recorded By: Jeff Hall
Witnessed By: Mr. Rick Allen

	Run 1	Run 2	Run 3
Density Tool	1306		
Density Sonde	1306		
Density Source	1306		
Density Detector	1306		
Neutron Tool	1306		
Neutron Sonde	1306		
Neutron Source	1306		
Neutron Detector	1306		
Gamma Ray Tool	1306		
Gamma Ray Sonde	1306		
Gamma Ray Detector	1306		
Caliper Tool	1306		
Caliper Sonde	1306		
Caliper Detector	1306		
Mud Resistivity Tool	1306		
Mud Resistivity Sonde	1306		
Mud Resistivity Detector	1306		
Shallow Resistivity Tool	1306		
Shallow Resistivity Sonde	1306		
Shallow Resistivity Detector	1306		
Mud Temperature Tool	1306		
Mud Temperature Sonde	1306		
Mud Temperature Detector	1306		

Density Tool: 1306
Density Sonde: 1306
Density Source: 1306
Density Detector: 1306
Neutron Tool: 1306
Neutron Sonde: 1306
Neutron Source: 1306
Neutron Detector: 1306
Gamma Ray Tool: 1306
Gamma Ray Sonde: 1306
Gamma Ray Detector: 1306
Caliper Tool: 1306
Caliper Sonde: 1306
Caliper Detector: 1306
Mud Resistivity Tool: 1306
Mud Resistivity Sonde: 1306
Mud Resistivity Detector: 1306
Shallow Resistivity Tool: 1306
Shallow Resistivity Sonde: 1306
Shallow Resistivity Detector: 1306
Mud Temperature Tool: 1306
Mud Temperature Sonde: 1306
Mud Temperature Detector: 1306

Density Tool: Serial Number
Density Sonde: Serial Number
Density Source: Serial Number
Density Detector: Serial Number
Neutron Tool: Serial Number
Neutron Sonde: Serial Number
Neutron Source: Serial Number
Neutron Detector: Serial Number
Gamma Ray Tool: Serial Number
Gamma Ray Sonde: Serial Number
Gamma Ray Detector: Serial Number
Caliper Tool: Serial Number
Caliper Sonde: Serial Number
Caliper Detector: Serial Number
Mud Resistivity Tool: Serial Number
Mud Resistivity Sonde: Serial Number
Mud Resistivity Detector: Serial Number
Shallow Resistivity Tool: Serial Number
Shallow Resistivity Sonde: Serial Number
Shallow Resistivity Detector: Serial Number
Mud Temperature Tool: Serial Number
Mud Temperature Sonde: Serial Number
Mud Temperature Detector: Serial Number

Density Tool: Base Calibration
Density Sonde: Base Calibration
Density Source: Base Calibration
Density Detector: Base Calibration
Neutron Tool: Base Calibration
Neutron Sonde: Base Calibration
Neutron Source: Base Calibration
Neutron Detector: Base Calibration
Gamma Ray Tool: Base Calibration
Gamma Ray Sonde: Base Calibration
Gamma Ray Detector: Base Calibration
Caliper Tool: Base Calibration
Caliper Sonde: Base Calibration
Caliper Detector: Base Calibration
Mud Resistivity Tool: Base Calibration
Mud Resistivity Sonde: Base Calibration
Mud Resistivity Detector: Base Calibration
Shallow Resistivity Tool: Base Calibration
Shallow Resistivity Sonde: Base Calibration
Shallow Resistivity Detector: Base Calibration
Mud Temperature Tool: Base Calibration
Mud Temperature Sonde: Base Calibration
Mud Temperature Detector: Base Calibration

Density Tool: Field Calibration
Density Sonde: Field Calibration
Density Source: Field Calibration
Density Detector: Field Calibration
Neutron Tool: Field Calibration
Neutron Sonde: Field Calibration
Neutron Source: Field Calibration
Neutron Detector: Field Calibration
Gamma Ray Tool: Field Calibration
Gamma Ray Sonde: Field Calibration
Gamma Ray Detector: Field Calibration
Caliper Tool: Field Calibration
Caliper Sonde: Field Calibration
Caliper Detector: Field Calibration
Mud Resistivity Tool: Field Calibration
Mud Resistivity Sonde: Field Calibration
Mud Resistivity Detector: Field Calibration
Shallow Resistivity Tool: Field Calibration
Shallow Resistivity Sonde: Field Calibration
Shallow Resistivity Detector: Field Calibration
Mud Temperature Tool: Field Calibration
Mud Temperature Sonde: Field Calibration
Mud Temperature Detector: Field Calibration

Density Tool: Log Calibration
Density Sonde: Log Calibration
Density Source: Log Calibration
Density Detector: Log Calibration
Neutron Tool: Log Calibration
Neutron Sonde: Log Calibration
Neutron Source: Log Calibration
Neutron Detector: Log Calibration
Gamma Ray Tool: Log Calibration
Gamma Ray Sonde: Log Calibration
Gamma Ray Detector: Log Calibration
Caliper Tool: Log Calibration
Caliper Sonde: Log Calibration
Caliper Detector: Log Calibration
Mud Resistivity Tool: Log Calibration
Mud Resistivity Sonde: Log Calibration
Mud Resistivity Detector: Log Calibration
Shallow Resistivity Tool: Log Calibration
Shallow Resistivity Sonde: Log Calibration
Shallow Resistivity Detector: Log Calibration
Mud Temperature Tool: Log Calibration
Mud Temperature Sonde: Log Calibration
Mud Temperature Detector: Log Calibration

Density Tool: Log Interval
Density Sonde: Log Interval
Density Source: Log Interval
Density Detector: Log Interval
Neutron Tool: Log Interval
Neutron Sonde: Log Interval
Neutron Source: Log Interval
Neutron Detector: Log Interval
Gamma Ray Tool: Log Interval
Gamma Ray Sonde: Log Interval
Gamma Ray Detector: Log Interval
Caliper Tool: Log Interval
Caliper Sonde: Log Interval
Caliper Detector: Log Interval
Mud Resistivity Tool: Log Interval
Mud Resistivity Sonde: Log Interval
Mud Resistivity Detector: Log Interval
Shallow Resistivity Tool: Log Interval
Shallow Resistivity Sonde: Log Interval
Shallow Resistivity Detector: Log Interval
Mud Temperature Tool: Log Interval
Mud Temperature Sonde: Log Interval
Mud Temperature Detector: Log Interval

Density Tool: Max Recorded Temperature
Density Sonde: Max Recorded Temperature
Density Source: Max Recorded Temperature
Density Detector: Max Recorded Temperature
Neutron Tool: Max Recorded Temperature
Neutron Sonde: Max Recorded Temperature
Neutron Source: Max Recorded Temperature
Neutron Detector: Max Recorded Temperature
Gamma Ray Tool: Max Recorded Temperature
Gamma Ray Sonde: Max Recorded Temperature
Gamma Ray Detector: Max Recorded Temperature
Caliper Tool: Max Recorded Temperature
Caliper Sonde: Max Recorded Temperature
Caliper Detector: Max Recorded Temperature
Mud Resistivity Tool: Max Recorded Temperature
Mud Resistivity Sonde: Max Recorded Temperature
Mud Resistivity Detector: Max Recorded Temperature
Shallow Resistivity Tool: Max Recorded Temperature
Shallow Resistivity Sonde: Max Recorded Temperature
Shallow Resistivity Detector: Max Recorded Temperature
Mud Temperature Tool: Max Recorded Temperature
Mud Temperature Sonde: Max Recorded Temperature
Mud Temperature Detector: Max Recorded Temperature

Density Tool: Equipment Number
Density Sonde: Equipment Number
Density Source: Equipment Number
Density Detector: Equipment Number
Neutron Tool: Equipment Number
Neutron Sonde: Equipment Number
Neutron Source: Equipment Number
Neutron Detector: Equipment Number
Gamma Ray Tool: Equipment Number
Gamma Ray Sonde: Equipment Number
Gamma Ray Detector: Equipment Number
Caliper Tool: Equipment Number
Caliper Sonde: Equipment Number
Caliper Detector: Equipment Number
Mud Resistivity Tool: Equipment Number
Mud Resistivity Sonde: Equipment Number
Mud Resistivity Detector: Equipment Number
Shallow Resistivity Tool: Equipment Number
Shallow Resistivity Sonde: Equipment Number
Shallow Resistivity Detector: Equipment Number
Mud Temperature Tool: Equipment Number
Mud Temperature Sonde: Equipment Number
Mud Temperature Detector: Equipment Number

Density Tool: Base Location
Density Sonde: Base Location
Density Source: Base Location
Density Detector: Base Location
Neutron Tool: Base Location
Neutron Sonde: Base Location
Neutron Source: Base Location
Neutron Detector: Base Location
Gamma Ray Tool: Base Location
Gamma Ray Sonde: Base Location
Gamma Ray Detector: Base Location
Caliper Tool: Base Location
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Caliper Detector: Base Location
Mud Resistivity Tool: Base Location
Mud Resistivity Sonde: Base Location
Mud Resistivity Detector: Base Location
Shallow Resistivity Tool: Base Location
Shallow Resistivity Sonde: Base Location
Shallow Resistivity Detector: Base Location
Mud Temperature Tool: Base Location
Mud Temperature Sonde: Base Location
Mud Temperature Detector: Base Location

Density Tool: Field Location
Density Sonde: Field Location
Density Source: Field Location
Density Detector: Field Location
Neutron Tool: Field Location
Neutron Sonde: Field Location
Neutron Source: Field Location
Neutron Detector: Field Location
Gamma Ray Tool: Field Location
Gamma Ray Sonde: Field Location
Gamma Ray Detector: Field Location
Caliper Tool: Field Location
Caliper Sonde: Field Location
Caliper Detector: Field Location
Mud Resistivity Tool: Field Location
Mud Resistivity Sonde: Field Location
Mud Resistivity Detector: Field Location
Shallow Resistivity Tool: Field Location
Shallow Resistivity Sonde: Field Location
Shallow Resistivity Detector: Field Location
Mud Temperature Tool: Field Location
Mud Temperature Sonde: Field Location
Mud Temperature Detector: Field Location

Density Tool: Log Location
Density Sonde: Log Location
Density Source: Log Location
Density Detector: Log Location
Neutron Tool: Log Location
Neutron Sonde: Log Location
Neutron Source: Log Location
Neutron Detector: Log Location
Gamma Ray Tool: Log Location
Gamma Ray Sonde: Log Location
Gamma Ray Detector: Log Location
Caliper Tool: Log Location
Caliper Sonde: Log Location
Caliper Detector: Log Location
Mud Resistivity Tool: Log Location
Mud Resistivity Sonde: Log Location
Mud Resistivity Detector: Log Location
Shallow Resistivity Tool: Log Location
Shallow Resistivity Sonde: Log Location
Shallow Resistivity Detector: Log Location
Mud Temperature Tool: Log Location
Mud Temperature Sonde: Log Location
Mud Temperature Detector: Log Location

Density Tool: Recorded By
Density Sonde: Recorded By
Density Source: Recorded By
Density Detector: Recorded By
Neutron Tool: Recorded By
Neutron Sonde: Recorded By
Neutron Source: Recorded By
Neutron Detector: Recorded By
Gamma Ray Tool: Recorded By
Gamma Ray Sonde: Recorded By
Gamma Ray Detector: Recorded By
Caliper Tool: Recorded By
Caliper Sonde: Recorded By
Caliper Detector: Recorded By
Mud Resistivity Tool: Recorded By
Mud Resistivity Sonde: Recorded By
Mud Resistivity Detector: Recorded By
Shallow Resistivity Tool: Recorded By
Shallow Resistivity Sonde: Recorded By
Shallow Resistivity Detector: Recorded By
Mud Temperature Tool: Recorded By
Mud Temperature Sonde: Recorded By
Mud Temperature Detector: Recorded By

Density Tool: Witnessed By
Density Sonde: Witnessed By
Density Source: Witnessed By
Density Detector: Witnessed By
Neutron Tool: Witnessed By
Neutron Sonde: Witnessed By
Neutron Source: Witnessed By
Neutron Detector: Witnessed By
Gamma Ray Tool: Witnessed By
Gamma Ray Sonde: Witnessed By
Gamma Ray Detector: Witnessed By
Caliper Tool: Witnessed By
Caliper Sonde: Witnessed By
Caliper Detector: Witnessed By
Mud Resistivity Tool: Witnessed By
Mud Resistivity Sonde: Witnessed By
Mud Resistivity Detector: Witnessed By
Shallow Resistivity Tool: Witnessed By
Shallow Resistivity Sonde: Witnessed By
Shallow Resistivity Detector: Witnessed By
Mud Temperature Tool: Witnessed By
Mud Temperature Sonde: Witnessed By
Mud Temperature Detector: Witnessed By

Density Tool: Run Number
Density Sonde: Run Number
Density Source: Run Number
Density Detector: Run Number
Neutron Tool: Run Number
Neutron Sonde: Run Number
Neutron Source: Run Number
Neutron Detector: Run Number
Gamma Ray Tool: Run Number
Gamma Ray Sonde: Run Number
Gamma Ray Detector: Run Number
Caliper Tool: Run Number
Caliper Sonde: Run Number
Caliper Detector: Run Number
Mud Resistivity Tool: Run Number
Mud Resistivity Sonde: Run Number
Mud Resistivity Detector: Run Number
Shallow Resistivity Tool: Run Number
Shallow Resistivity Sonde: Run Number
Shallow Resistivity Detector: Run Number
Mud Temperature Tool: Run Number
Mud Temperature Sonde: Run Number
Mud Temperature Detector: Run Number

Density Tool: Depth Driller
Density Sonde: Depth Driller
Density Source: Depth Driller
Density Detector: Depth Driller
Neutron Tool: Depth Driller
Neutron Sonde: Depth Driller
Neutron Source: Depth Driller
Neutron Detector: Depth Driller
Gamma Ray Tool: Depth Driller
Gamma Ray Sonde: Depth Driller
Gamma Ray Detector: Depth Driller
Caliper Tool: Depth Driller
Caliper Sonde: Depth Driller
Caliper Detector: Depth Driller
Mud Resistivity Tool: Depth Driller
Mud Resistivity Sonde: Depth Driller
Mud Resistivity Detector: Depth Driller
Shallow Resistivity Tool: Depth Driller
Shallow Resistivity Sonde: Depth Driller
Shallow Resistivity Detector: Depth Driller
Mud Temperature Tool: Depth Driller
Mud Temperature Sonde: Depth Driller
Mud Temperature Detector: Depth Driller

Density Tool: Depth Logger
Density Sonde: Depth Logger
Density Source: Depth Logger
Density Detector: Depth Logger
Neutron Tool: Depth Logger
Neutron Sonde: Depth Logger
Neutron Source: Depth Logger
Neutron Detector: Depth Logger
Gamma Ray Tool: Depth Logger
Gamma Ray Sonde: Depth Logger
Gamma Ray Detector: Depth Logger
Caliper Tool: Depth Logger
Caliper Sonde: Depth Logger
Caliper Detector: Depth Logger
Mud Resistivity Tool: Depth Logger
Mud Resistivity Sonde: Depth Logger
Mud Resistivity Detector: Depth Logger
Shallow Resistivity Tool: Depth Logger
Shallow Resistivity Sonde: Depth Logger
Shallow Resistivity Detector: Depth Logger
Mud Temperature Tool: Depth Logger
Mud Temperature Sonde: Depth Logger
Mud Temperature Detector: Depth Logger

Density Tool: Bottom Logged Interval
Density Sonde: Bottom Logged Interval
Density Source: Bottom Logged Interval
Density Detector: Bottom Logged Interval
Neutron Tool: Bottom Logged Interval
Neutron Sonde: Bottom Logged Interval
Neutron Source: Bottom Logged Interval
Neutron Detector: Bottom Logged Interval
Gamma Ray Tool: Bottom Logged Interval
Gamma Ray Sonde: Bottom Logged Interval
Gamma Ray Detector: Bottom Logged Interval
Caliper Tool: Bottom Logged Interval
Caliper Sonde: Bottom Logged Interval
Caliper Detector: Bottom Logged Interval
Mud Resistivity Tool: Bottom Logged Interval
Mud Resistivity Sonde: Bottom Logged Interval
Mud Resistivity Detector: Bottom Logged Interval
Shallow Resistivity Tool: Bottom Logged Interval
Shallow Resistivity Sonde: Bottom Logged Interval
Shallow Resistivity Detector: Bottom Logged Interval
Mud Temperature Tool: Bottom Logged Interval
Mud Temperature Sonde: Bottom Logged Interval
Mud Temperature Detector: Bottom Logged Interval

Density Tool: Top Logged Interval
Density Sonde: Top Logged Interval
Density Source: Top Logged Interval
Density Detector: Top Logged Interval
Neutron Tool: Top Logged Interval
Neutron Sonde: Top Logged Interval
Neutron Source: Top Logged Interval
Neutron Detector: Top Logged Interval
Gamma Ray Tool: Top Logged Interval
Gamma Ray Sonde: Top Logged Interval
Gamma Ray Detector: Top Logged Interval
Caliper Tool: Top Logged Interval
Caliper Sonde: Top Logged Interval
Caliper Detector: Top Logged Interval
Mud Resistivity Tool: Top Logged Interval
Mud Resistivity Sonde: Top Logged Interval
Mud Resistivity Detector: Top Logged Interval
Shallow Resistivity Tool: Top Logged Interval
Shallow Resistivity Sonde: Top Logged Interval
Shallow Resistivity Detector: Top Logged Interval
Mud Temperature Tool: Top Logged Interval
Mud Temperature Sonde: Top Logged Interval
Mud Temperature Detector: Top Logged Interval

Density Tool: Casing Driller
Density Sonde: Casing Driller
Density Source: Casing Driller
Density Detector: Casing Driller
Neutron Tool: Casing Driller
Neutron Sonde: Casing Driller
Neutron Source: Casing Driller
Neutron Detector: Casing Driller
Gamma Ray Tool: Casing Driller
Gamma Ray Sonde: Casing Driller
Gamma Ray Detector: Casing Driller
Caliper Tool: Casing Driller
Caliper Sonde: Casing Driller
Caliper Detector: Casing Driller
Mud Resistivity Tool: Casing Driller
Mud Resistivity Sonde: Casing Driller
Mud Resistivity Detector: Casing Driller
Shallow Resistivity Tool: Casing Driller
Shallow Resistivity Sonde: Casing Driller
Shallow Resistivity Detector: Casing Driller
Mud Temperature Tool: Casing Driller
Mud Temperature Sonde: Casing Driller
Mud Temperature Detector: Casing Driller

Density Tool: Casing Logger
Density Sonde: Casing Logger
Density Source: Casing Logger
Density Detector: Casing Logger
Neutron Tool: Casing Logger
Neutron Sonde: Casing Logger
Neutron Source: Casing Logger
Neutron Detector: Casing Logger
Gamma Ray Tool: Casing Logger
Gamma Ray Sonde: Casing Logger
Gamma Ray Detector: Casing Logger
Caliper Tool: Casing Logger
Caliper Sonde: Casing Logger
Caliper Detector: Casing Logger
Mud Resistivity Tool: Casing Logger
Mud Resistivity Sonde: Casing Logger
Mud Resistivity Detector: Casing Logger
Shallow Resistivity Tool: Casing Logger
Shallow Resistivity Sonde: Casing Logger
Shallow Resistivity Detector: Casing Logger
Mud Temperature Tool: Casing Logger
Mud Temperature Sonde: Casing Logger
Mud Temperature Detector: Casing Logger

Density Tool: Bit Size
Density Sonde: Bit Size
Density Source: Bit Size
Density Detector: Bit Size
Neutron Tool: Bit Size
Neutron Sonde: Bit Size
Neutron Source: Bit Size
Neutron Detector: Bit Size
Gamma Ray Tool: Bit Size
Gamma Ray Sonde: Bit Size
Gamma Ray Detector: Bit Size
Caliper Tool: Bit Size
Caliper Sonde: Bit Size
Caliper Detector: Bit Size
Mud Resistivity Tool: Bit Size
Mud Resistivity Sonde: Bit Size
Mud Resistivity Detector: Bit Size
Shallow Resistivity Tool: Bit Size
Shallow Resistivity Sonde: Bit Size
Shallow Resistivity Detector: Bit Size
Mud Temperature Tool: Bit Size
Mud Temperature Sonde: Bit Size
Mud Temperature Detector: Bit Size

Density Tool: Type Fluid
Density Sonde: Type Fluid
Density Source: Type Fluid
Density Detector: Type Fluid
Neutron Tool: Type Fluid
Neutron Sonde: Type Fluid
Neutron Source: Type Fluid
Neutron Detector: Type Fluid
Gamma Ray Tool: Type Fluid
Gamma Ray Sonde: Type Fluid
Gamma Ray Detector: Type Fluid
Caliper Tool: Type Fluid
Caliper Sonde: Type Fluid
Caliper Detector: Type Fluid
Mud Resistivity Tool: Type Fluid
Mud Resistivity Sonde: Type Fluid
Mud Resistivity Detector: Type Fluid
Shallow Resistivity Tool: Type Fluid
Shallow Resistivity Sonde: Type Fluid
Shallow Resistivity Detector: Type Fluid
Mud Temperature Tool: Type Fluid
Mud Temperature Sonde: Type Fluid
Mud Temperature Detector: Type Fluid

Density Tool: Density
Density Sonde: Density
Density Source: Density
Density Detector: Density
Neutron Tool: Density
Neutron Sonde: Density
Neutron Source: Density
Neutron Detector: Density
Gamma Ray Tool: Density
Gamma Ray Sonde: Density
Gamma Ray Detector: Density
Caliper Tool: Density
Caliper Sonde: Density
Caliper Detector: Density
Mud Resistivity Tool: Density
Mud Resistivity Sonde: Density
Mud Resistivity Detector: Density
Shallow Resistivity Tool: Density
Shallow Resistivity Sonde: Density
Shallow Resistivity Detector: Density
Mud Temperature Tool: Density
Mud Temperature Sonde: Density
Mud Temperature Detector: Density

Density Tool: Viscosity
Density Sonde: Viscosity
Density Source: Viscosity
Density Detector: Viscosity
Neutron Tool: Viscosity
Neutron Sonde: Viscosity
Neutron Source: Viscosity
Neutron Detector: Viscosity
Gamma Ray Tool: Viscosity
Gamma Ray Sonde: Viscosity
Gamma Ray Detector: Viscosity
Caliper Tool: Viscosity
Caliper Sonde: Viscosity
Caliper Detector: Viscosity
Mud Resistivity Tool: Viscosity
Mud Resistivity Sonde: Viscosity
Mud Resistivity Detector: Viscosity
Shallow Resistivity Tool: Viscosity
Shallow Resistivity Sonde: Viscosity
Shallow Resistivity Detector: Viscosity
Mud Temperature Tool: Viscosity
Mud Temperature Sonde: Viscosity
Mud Temperature Detector: Viscosity

Density Tool: PH
Density Sonde: PH
Density Source: PH
Density Detector: PH
Neutron Tool: PH
Neutron Sonde: PH
Neutron Source: PH
Neutron Detector: PH
Gamma Ray Tool: PH
Gamma Ray Sonde: PH
Gamma Ray Detector: PH
Caliper Tool: PH
Caliper Sonde: PH
Caliper Detector: PH
Mud Resistivity Tool: PH
Mud Resistivity Sonde: PH
Mud Resistivity Detector: PH
Shallow Resistivity Tool: PH
Shallow Resistivity Sonde: PH
Shallow Resistivity Detector: PH
Mud Temperature Tool: PH
Mud Temperature Sonde: PH
Mud Temperature Detector: PH

Density Tool: Fluid Loss
Density Sonde: Fluid Loss
Density Source: Fluid Loss
Density Detector: Fluid Loss
Neutron Tool: Fluid Loss
Neutron Sonde: Fluid Loss
Neutron Source: Fluid Loss
Neutron Detector: Fluid Loss
Gamma Ray Tool: Fluid Loss
Gamma Ray Sonde: Fluid Loss
Gamma Ray Detector: Fluid Loss
Caliper Tool: Fluid Loss
Caliper Sonde: Fluid Loss
Caliper Detector: Fluid Loss
Mud Resistivity Tool: Fluid Loss
Mud Resistivity Sonde: Fluid Loss
Mud Resistivity Detector: Fluid Loss
Shallow Resistivity Tool: Fluid Loss
Shallow Resistivity Sonde: Fluid Loss
Shallow Resistivity Detector: Fluid Loss
Mud Temperature Tool: Fluid Loss
Mud Temperature Sonde: Fluid Loss
Mud Temperature Detector: Fluid Loss

Density Tool: Source of Sample
Density Sonde: Source of Sample
Density Source: Source of Sample
Density Detector: Source of Sample
Neutron Tool: Source of Sample
Neutron Sonde: Source of Sample
Neutron Source: Source of Sample
Neutron Detector: Source of Sample
Gamma Ray Tool: Source of Sample
Gamma Ray Sonde: Source of Sample
Gamma Ray Detector: Source of Sample
Caliper Tool: Source of Sample
Caliper Sonde: Source of Sample
Caliper Detector: Source of Sample
Mud Resistivity Tool: Source of Sample
Mud Resistivity Sonde: Source of Sample
Mud Resistivity Detector: Source of Sample
Shallow Resistivity Tool: Source of Sample
Shallow Resistivity Sonde: Source of Sample
Shallow Resistivity Detector: Source of Sample
Mud Temperature Tool: Source of Sample
Mud Temperature Sonde: Source of Sample
Mud Temperature Detector: Source of Sample

Density Tool: Rm @ Meas. Temp
Density Sonde: Rm @ Meas. Temp
Density Source: Rm @ Meas. Temp
Density Detector: Rm @ Meas. Temp
Neutron Tool: Rm @ Meas. Temp
Neutron Sonde: Rm @ Meas. Temp
Neutron Source: Rm @ Meas. Temp
Neutron Detector: Rm @ Meas. Temp
Gamma Ray Tool: Rm @ Meas. Temp
Gamma Ray Sonde: Rm @ Meas. Temp
Gamma Ray Detector: Rm @ Meas. Temp
Caliper Tool: Rm @ Meas. Temp
Caliper Sonde: Rm @ Meas. Temp
Caliper Detector: Rm @ Meas. Temp
Mud Resistivity Tool: Rm @ Meas. Temp
Mud Resistivity Sonde: Rm @ Meas. Temp
Mud Resistivity Detector: Rm @ Meas. Temp
Shallow Resistivity Tool: Rm @ Meas. Temp
Shallow Resistivity Sonde: Rm @ Meas. Temp
Shallow Resistivity Detector: Rm @ Meas. Temp
Mud Temperature Tool: Rm @ Meas. Temp
Mud Temperature Sonde: Rm @ Meas. Temp
Mud Temperature Detector: Rm @ Meas. Temp

Density Tool: Rmf @ Meas. Temp
Density Sonde: Rmf @ Meas. Temp
Density Source: Rmf @ Meas. Temp
Density Detector: Rmf @ Meas. Temp
Neutron Tool: Rmf @ Meas. Temp
Neutron Sonde: Rmf @ Meas. Temp
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Mud Temperature Tool: Rmf @ Meas. Temp
Mud Temperature Sonde: Rmf @ Meas. Temp
Mud Temperature Detector: Rmf @ Meas. Temp

Density Tool: Rmc @ Meas. Temp
Density Sonde: Rmc @ Meas. Temp
Density Source: Rmc @ Meas. Temp
Density Detector: Rmc @ Meas. Temp
Neutron Tool: Rmc @ Meas. Temp
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Neutron Detector: Rmc @ Meas. Temp
Gamma Ray Tool: Rmc @ Meas. Temp
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Caliper Detector: Rmc @ Meas. Temp
Mud Resistivity Tool: Rmc @ Meas. Temp
Mud Resistivity Sonde: Rmc @ Meas. Temp
Mud Resistivity Detector: Rmc @ Meas. Temp
Shallow Resistivity Tool: Rmc @ Meas. Temp
Shallow Resistivity Sonde: Rmc @ Meas. Temp
Shallow Resistivity Detector: Rmc @ Meas. Temp
Mud Temperature Tool: Rmc @ Meas. Temp
Mud Temperature Sonde: Rmc @ Meas. Temp
Mud Temperature Detector: Rmc @ Meas. Temp

Density Tool: Source Rmf / Rmc
Density Sonde: Source Rmf / Rmc
Density Source: Source Rmf / Rmc
Density Detector: Source Rmf / Rmc
Neutron Tool: Source Rmf / Rmc
Neutron Sonde: Source Rmf / Rmc
Neutron Source: Source Rmf / Rmc
Neutron Detector: Source Rmf / Rmc
Gamma Ray Tool: Source Rmf / Rmc
Gamma Ray Sonde: Source Rmf / Rmc
Gamma Ray Detector: Source Rmf / Rmc
Caliper Tool: Source Rmf / Rmc
Caliper Sonde: Source Rmf / Rmc
Caliper Detector: Source Rmf / Rmc
Mud Resistivity Tool: Source Rmf / Rmc
Mud Resistivity Sonde: Source Rmf / Rmc
Mud Resistivity Detector: Source Rmf / Rmc
Shallow Resistivity Tool: Source Rmf / Rmc
Shallow Resistivity Sonde: Source Rmf / Rmc
Shallow Resistivity Detector: Source Rmf / Rmc
Mud Temperature Tool: Source Rmf / Rmc
Mud Temperature Sonde: Source Rmf / Rmc
Mud Temperature Detector: Source Rmf / Rmc

Density Tool: Rm @ BHT
Density Sonde: Rm @ BHT
Density Source: Rm @ BHT
Density Detector: Rm @ BHT
Neutron Tool: Rm @ BHT
Neutron Sonde: Rm @ BHT
Neutron Source: Rm @ BHT
Neutron Detector: Rm @ BHT
Gamma Ray Tool: Rm @ BHT
Gamma Ray Sonde: Rm @ BHT
Gamma Ray Detector: Rm @ BHT
Caliper Tool: Rm @ BHT
Caliper Sonde: Rm @ BHT
Caliper Detector: Rm @ BHT
Mud Resistivity Tool: Rm @ BHT
Mud Resistivity Sonde: Rm @ BHT
Mud Resistivity Detector: Rm @ BHT
Shallow Resistivity Tool: Rm @ BHT
Shallow Resistivity Sonde: Rm @ BHT
Shallow Resistivity Detector: Rm @ BHT
Mud Temperature Tool: Rm @ BHT
Mud Temperature Sonde: Rm @ BHT
Mud Temperature Detector: Rm @ BHT

Density Tool: Time Since Circulation
Density Sonde: Time Since Circulation
Density Source: Time Since Circulation
Density Detector: Time Since Circulation
Neutron Tool: Time Since Circulation
Neutron Sonde: Time Since Circulation
Neutron Source: Time Since Circulation
Neutron Detector: Time Since Circulation
Gamma Ray Tool: Time Since Circulation
Gamma Ray Sonde: Time Since Circulation
Gamma Ray Detector: Time Since Circulation
Caliper Tool: Time Since Circulation
Caliper Sonde: Time Since Circulation
Caliper Detector: Time Since Circulation
Mud Resistivity Tool: Time Since Circulation
Mud Resistivity Sonde: Time Since Circulation
Mud Resistivity Detector: Time Since Circulation
Shallow Resistivity Tool: Time Since Circulation
Shallow Resistivity Sonde: Time Since Circulation
Shallow Resistivity Detector: Time Since Circulation
Mud Temperature Tool: Time Since Circulation
Mud Temperature Sonde: Time Since Circulation
Mud Temperature Detector: Time Since Circulation

Density Tool: Max Rec. Temperature
Density Sonde: Max Rec. Temperature
Density Source: Max Rec. Temperature
Density Detector: Max Rec. Temperature
Neutron Tool: Max Rec. Temperature
Neutron Sonde: Max Rec. Temperature
Neutron Source: Max Rec. Temperature
Neutron Detector: Max Rec. Temperature
Gamma Ray Tool: Max Rec. Temperature
Gamma Ray Sonde: Max Rec. Temperature
Gamma Ray Detector: Max Rec. Temperature
Caliper Tool: Max Rec. Temperature
Caliper Sonde: Max Rec. Temperature
Caliper Detector: Max Rec. Temperature
Mud Resistivity Tool: Max Rec. Temperature
Mud Resistivity Sonde: Max Rec. Temperature
Mud Resistivity Detector: Max Rec. Temperature
Shallow Resistivity Tool: Max Rec. Temperature
Shallow Resistivity Sonde: Max Rec. Temperature
Shallow Resistivity Detector: Max Rec. Temperature
Mud Temperature Tool: Max Rec. Temperature
Mud Temperature Sonde: Max Rec. Temperature
Mud Temperature Detector: Max Rec. Temperature

Density Tool: Equipment / Base
Density Sonde: Equipment / Base
Density Source: Equipment / Base
Density Detector: Equipment / Base
Neutron Tool: Equipment / Base
Neutron Sonde: Equipment / Base
Neutron Source: Equipment / Base
Neutron Detector: Equipment / Base
Gamma Ray Tool: Equipment / Base
Gamma Ray Sonde: Equipment / Base
Gamma Ray Detector: Equipment / Base
Caliper Tool: Equipment / Base
Caliper Sonde: Equipment / Base
Caliper Detector: Equipment / Base
Mud Resistivity Tool: Equipment / Base
Mud Resistivity Sonde: Equipment / Base
Mud Resistivity Detector: Equipment / Base
Shallow Resistivity Tool: Equipment / Base
Shallow Resistivity Sonde: Equipment / Base
Shallow Resistivity Detector: Equipment / Base
Mud Temperature Tool: Equipment / Base
Mud Temperature Sonde: Equipment / Base
Mud Temperature Detector: Equipment / Base

Density Tool: Recorded By
Density Sonde: Recorded By
Density Source: Recorded By
Density Detector: Recorded By
Neutron Tool: Recorded By
Neutron Sonde: Recorded By
Neutron Source: Recorded By
Neutron Detector: Recorded By
Gamma Ray Tool: Recorded By
Gamma Ray Sonde: Recorded By
Gamma Ray Detector: Recorded By
Caliper Tool: Recorded By
Caliper Sonde: Recorded By
Caliper Detector: Recorded By
Mud Resistivity Tool: Recorded By
Mud Resistivity Sonde: Recorded By
Mud Resistivity Detector: Recorded By
Shallow Resistivity Tool: Recorded By
Shallow Resistivity Sonde: Recorded By
Shallow Resistivity Detector: Recorded By
Mud Temperature Tool: Recorded By
Mud Temperature Sonde: Recorded By
Mud Temperature Detector: Recorded By

Density Tool: Witnessed By
Density Sonde: Witnessed By
Density Source: Witnessed By
Density Detector: Witnessed By
Neutron Tool: Witnessed By
Neutron Sonde: Witnessed By
Neutron Source: Witnessed By
Neutron Detector: Witnessed By
Gamma Ray Tool: Witnessed By
Gamma Ray Sonde: Witnessed By
Gamma Ray Detector: Witnessed By
Caliper Tool: Witnessed By
Caliper Sonde: Witnessed By
Caliper Detector: Witnessed By
Mud Resistivity Tool: Witnessed By
Mud Resistivity Sonde: Witnessed By
Mud Resistivity Detector: Witnessed By
Shallow Resistivity Tool: Witnessed By
Shallow Resistivity Sonde: Witnessed By
Shallow Resistivity Detector: Witnessed By
Mud Temperature Tool: Witnessed By
Mud Temperature Sonde: Witnessed By
Mud Temperature Detector: Witnessed By

Density Tool: Run Number
Density Sonde: Run Number
Density Source: Run Number
Density Detector: Run Number
Neutron Tool: Run Number
Neutron Sonde: Run Number
Neutron Source: Run Number
Neutron Detector: Run Number
Gamma Ray Tool: Run Number
Gamma Ray Sonde: Run Number
Gamma Ray Detector: Run Number
Caliper Tool: Run Number
Caliper Sonde: Run Number
Caliper Detector: Run Number
Mud Resistivity Tool: Run Number
Mud Resistivity Son